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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,431	01/28/2004	David P. Vronay	MS306697.1/MSFTP543US	3594

27195 7590 01/11/2008

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EXAMINER	
KHATRI, ANIL	

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
01/11/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/766,431	VRONAY ET AL.	
	Examiner	Art Unit	
	Anil Khatri	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-27,29-36 and 38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 11-27, 29-36 and 38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, 11-27, 29-36 and 38 are rejected under 35 USC 101 because they disclose a claimed invention that is an abstract idea as defined in the case *In re Warmerdam*, 33, F 3d 1354, 31 USPQ 2d 1754 (Fed. Cir. 1994).

Analysis: Claims 1-9, 11-27, 29-36 and 38 are disclosed by the applicant as being a "computer implemented system for specifying..." Since the claims are each a series of steps to be performed on a computer the processes must be analyzed to determine whether they are statutory under 35 USC 101.

Examiner interprets that the claims 1-9, 11-27, 29-36 and 38 are non-statutory because they do not disclose that how a computer implemented system will be able to carry out its intended result and carry out events without incorporating the steps of time interval and synchronization between the each event to carry out order of events. Further, applicant submit no substance that how this will be processed and executed without incorporating a processor, memory and medium. Therefore, claims 1-9, 11-27, 29-36 and 38 are an abstract idea and merely manipulation of instruction without representing inference steps. Thus, claims 1-9, 11-27, 29-36 and 38 are non-statutory and rejected under 35 USC 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9, 11-27, 29-36 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by *Buchanan et al* USPN 5,515,490.

Regarding claims 1, 27 and 29

Buchanan et al teaches,

a constraint component that receives temporal constraints associated with a plurality of events (see abstract, Several temporal relationships are supported, including "simultaneous with", for synchronization of two media items or events, and relationships such as "before by 10 seconds." The temporal formatter positions media data items having predictable behavior in time according to the specified temporal relationships and using the specified durations, and creates an auxiliary temporal layout with unresolved times for each media data item or event therein having unpredictable behavior. The temporal formatter automatically produces temporal layouts for documents that include media items for which internal events and continuously adjustable durations are specified, thereby providing for very flexible positioning of media items in time without the author's involvement. The author of the document may specify a flexibility metric at the media or event level related to the continuously adjustable durations that

provides the temporal formatter with guidance as to how to best position temporally related media items in time. In an illustrated embodiment, the flexibility metric consists of duration-adjustment costs, and the temporal formatter uses linear programming to solve for solutions to equations formulating the temporal constraints between connected components in the document); and

an order component that determines an event order in accordance with the temporal constraints, wherein the event order specifies the execution order of events (column 5, lines 36-67, component of a temporal formatter that automatically constructs a partial temporal layout for media segments having predictable behavior. The temporal formatter flexibly positions in time, at the event level, the media items included in a document using a range of times specified for each media item while still satisfying the temporal relationships between media item events, as specified by the author. The temporal relationships that may be specified include several relative relationships (e.g., before by 10 seconds, before by at least 15 seconds, and before by between 10 and 20 seconds) in addition to the standard "simultaneous with" temporal relationship, thus requiring the temporal formatter to do more than merely synchronize events in order to position the media items in time effectively. If a specified temporal relationship between two events cannot be satisfied by positioning a media item in time, the temporal formatter further is able to adjust the duration of one or more media items as necessary to satisfy temporal relationships. For any two media item events that cannot be initially positioned to satisfy a specified temporal relationship, the temporal formatter uses a flexibility

metric, which may be specified at both the media item level and at the document level, to determine which media item duration of the two media item events should be changed, whether to lengthen ("stretch") or shorten ("shrink") the duration to be changed, and by how much. The method provides a wide range of flexibility in positioning media events, and relieves the burden of this positioning from the document author. In addition, this temporal formatting is accomplished before displaying the document, representing a significant improvement over existing schedulers which do not make adjustments until the document is being displayed at runtime. Thus, the method and system of the present invention are able to effectively support and schedule media items that have a rich set of capabilities including fine granularity, continuously adjustable durations, and the explicit representation of temporal relationships among media items in a document).

Regarding claims 2, 3, 12, 14 and 34

Buchanan et al teaches,

the constraint is an event start and/or a stop time (column 13, lines 20-52, event data items are "temporally adjacent" when a time ordering relationship between the two events has been specified. The data indicating the ordering relationship between two events is referred to herein as "temporal constraint data." The author of the time-dependent document may specify a temporal ordering relationship between media items at the events marked by event data items. An event data item can identify a range of things: an absolute time, a relative time during the document's presentation (i.e., 10 seconds after the start of the document, halfway through a media item); a

predictable or unpredictable event in a media item; an external event that can be passed through to the system (i.e., user interaction); or a composite event data item, which is any temporal relationship that produces a specific point in time. Ordering relations are binary relations that specify the order of occurrence of event data items in the time-dependent document. Examples of ordering relations include "simultaneous with" and "before by 10 seconds." These parameters may be temporal equalities, such as 10 seconds; temporal inequalities, such as less than 10 seconds; or temporal ranges, such as between 10 seconds and 1 minute. The present invention uses the specified temporal relationships to assign times to events by positioning media segments, and then adjusting temporal relationships or durations of media segments within specified ranges. Note that, in the example above of the static media item with predictable duration defined by highlighting 6 regions of the image for 2 minutes each for an overall duration of 12 minutes, when the presentation of one of the six highlighted regions is temporally related to a prior-presented one of highlighted regions of the image, the two temporally related presentations of the highlighted regions describe first and second temporally adjacent media items for purposes of the present invention.

Regarding claim 4

Buchanan et al teaches,

The constraints are a filter (column 19, lines 35-52, see table 2, each document description data structure 62 also includes temporal constraint data 70 indicating time ordering relationships among events in the document. Temporal constraints explicitly represent the temporal relationships among events in the document by specifying the temporal ordering of pairs of

events in one or more media items. Each temporal constraint is directed from a source event, e.sub.src, to a destination event, e.sub.dest. Temporal constraints are specified by the author. There are two classes of temporal constraints: temporal equalities, such as requiring that two events e.sub.src and e.sub.dest occur simultaneously, or that e.sub.src precede e.sub.dest by a fixed length of time; and temporal inequalities, such as requiring that e.sub.src precede e.sub.dest by some unspecified duration, that e.sub.src precede e.sub.dest by at least 15 seconds, or that e.sub.src precede e.sub.dest by at least 10 and no more than 20 seconds. Table 2 below lists the temporal constraints supported by the illustrated embodiment of temporal formatter 100. Column 2 in Table 2 provides the mathematical representation used by temporal formatter 100 to express the constraint).

Regarding claim 5

Buchanan et al teaches,

A system information component that provides information about an execution system to the order component to facilitate selection of an optimal event order (column 29,lines 11-25, In an alternative implementation, the events in a time-dependent document may also be flexibly positioned in time using a shortest path algorithm. The shortest path algorithm is a polynomial algorithm (O(n.sup.3)) that supports a limited form of stretching and shrinking using minimum and maximum durations only. Instead of computing "optimal" event times, this algorithm produces a range of legal times at which each event can occur. In another embodiment of the method of the present invention, temporal formatter 100 used this algorithm, scheduling each event at the earliest possible time in its legal range. This implementation did not make use of a

flexibility metric. However, this algorithm very quickly determines whether at least one consistent temporal layout can be produced, and so it is useful for either debugging or as a preprocess to more quickly identify the existence of a consistent temporal layout for the particular input temporal specification).

Regarding claim 6

Buchanan et al teaches,

Information about an executing system includes available memory (see figure 5).

Regarding claim 7

Buchanan et al teaches,

Information about and execution system includes data throughput rate (column 11,lines 46-57, A predictable media preparation time includes such time as the time required to spin up video playback heads or to transmit data over a network providing guaranteed throughput. An unpredictable duration is one whose length cannot be determined until the media segment actually ends. Media segments with unpredictable durations include programs with unpredictable execution times, such as database search engines and simulations; and real-time communication, such as telephone conversations and live broadcasts of lectures. Unpredictable media preparation times include those to perform a graphical transformation on an image or to transmit data over a network in which resources cannot be reserved).

Regarding claim 8

Buchanan et al teaches,

a display component that provides a plurality of object workspaces, the workspaces including at least one of a past, present and/or future space, the present space is an editable area (column 20,lines 45-65, The authoring subsystem of the system of the present invention provides a user interface, illustrated in FIG. 3, for representing the exemplary document to the author in a schematic, graphical representation 400 in display area 580 of a display device 570 (FIG. 9). The authoring subsystem provides two direct manipulation authoring tools for creating and editing temporal specifications: a temporal view of a media item, and an interactive document editor, which is shown in FIG. 3. Authors use the editors provided by the media managers to create and edit media items and to mark internal events within them. In response to the author's actions in a media editor, the authoring subsystem creates the graphic representation of the temporal view of a media item, as illustrated in FIG. 3. Authors use the authoring subsystem's interactive document editor to create the document-level specification from which the temporal specification of a time-dependent document is created. The document editor supports adding media items to a document, placing temporal constraints between events to specify their temporal ordering, and adding lists of operations to events to control the presentation behavior of a media item); and a design component that temporally associates and/or disassociate objects in the editable area (column 9, lines 49-65, he method of the present invention provides a method of automatically temporally formatting the presentation of data components that have temporal relationships among them. These data components may be thought of as a temporally related unit called a "time-dependent document." A "time-dependent

document" as used herein is a series of (at least two) discrete sets, or components, of data related in time (e.g., by order of occurrence) and presented to a human user on one or more media presentation devices suitable for presenting the data components in human-perceptible form. The term "series" is intended to include discrete sets of data components that are partially or wholly concurrent in time, as well as those that do not overlap in time and are sequential. A multimedia document defined by at least two discrete sets, or components, of data related in time and presented to a human user on one or more media presentation devices is an example of a time-dependent document. In addition, a hypermedia document is also an example of a time-dependent document).

Regarding claims 9, 11, 13, 15-19, 21-26, 35- 36 and 38

Rejection of claims 8 and 29 are incorporated and further claims 9, 11, 13, 15-19, 21-26, 35, 36 and 38 cites similar limitations as in claims 8 and 29, therefore, claims 9, 11, 13, 15-19, 21-26 and 35-36 and 38 are rejected under same rationale.

Regarding claim 20

Buchanan et al teaches,

A query component that searches for events that satisfy a query and display object associated with the events in temporal order (column 12-13, lines 53-67 and lines 1-4, A "flexibility metric" specifying a quality or expense parameter can be used by a formatter to select the "best" representation for each media segment in a given situation. That representation may include selecting an alternative presentation type for the media item, or adjusting the duration of the media item. In the method of the present invention, the flexibility metric permits the scheduler

to determine the "best" way to adjust the durations of one or both of first and second temporally adjacent media items within the range of durations specified for each in order to satisfy the specified temporal relationship between the two media items. The "best" solution to adjusting the durations is computed by the system according to metric parameters supplied by the document's author. In the illustrated embodiment of the temporal formatting method of the present invention described in detail in Section B below, the author of the time-dependent document specifies "costs" for each media item. Costs are numerical values that define to the method a penalty for deviating from the optimum duration specified for a media item).

Regarding claims 30-33

Buchanan et al teaches,

Associated object based on one or more operational object (column 15,lines 39-57, A two-dimensional array is an image definition data structure that can define all or any part of an image, with each item of data in the array providing a value indicating the color of a respective location of the image. Each such image location is typically called a "pixel", and the two-dimensional array of data is typically called "image pixel data" or an "image pixel data structure," each item of data in the array providing a value, called a "pixel value", indicating the color of an image location. While image pixel data is the most common type of image definition data, other image definitions, such as vector list data, are intended to be included within the meaning of data defining an image. The discrete set of data defining a media item may alternatively be comprised of a data structure and an operation for operating on that data

structure. An operation "produces" a display feature or object in an image or a sound in a set of audio signals when the operation begins without the data defining the image display feature or sound, and performing the operation results in the data defining the image display feature or sound).

structure. An operation "produces" a display feature or object in an image or a sound in a set of audio signals when the operation begins without the data defining the image display feature or sound, and performing the operation results in the data defining the image display feature or sound).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anil Khatri whose telephone number is 571-272-3725. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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ANIL KHATRI
PRIMARY EXAMINER